# **REMARKS**

### PENDING CLAIMS

Claims 1-32 are pending. Claims 1-18, 23, 25, 26, 29 and 31 have been examined. Claims 1, 23, 25, 29 and 31 are amended. Claim 1 has been amended to clarify that the substantially non-magnetic host material has pre-formed pores, and that some of the pores have been filled with a magnetic material. Support for the amendments can be found throughout the specification, for example in paragraphs [0025], [0028] and [0033-0035] of the application as filed. Claims 23, 25, 29 and 31 are correspondingly amended to specify a tag having such features.

Claims 19-22, 24, 27, 28, 30 and 32 have been withdrawn. Withdrawn claims 19, 24, 27, 30 and 32 are also amended in the same fashion as the examined claims.

## RESTRICTION/ELECTION REQUIREMENT

Applicants acknowledge the finality of the restriction requirement and applicants' election. However, applicants would like to point out that, with the amendments added to the claims by this paper, the two groups of claims can be seen as one invention. Applicants therefore request that in the event of allowance of any of the elected Group I claims, the examiner rejoin Group II claims by withdrawing the restriction requirement.

# REJECTION OF CLAIMS 1-14, 16-18, 23, 25, 26, 29 AND 31 UNDER 35 USC § 102(B)

The examiner has found claims 1-14, 16-18, 23, 25, 26, 29 and 31 to be anticipated by Suzuki (US Patent No. 5,972,438). Applicants respectfully disagree. Suzuki discloses a magnetic swipe card comprising a magnetic strip that stores regular magnetically-written information, as well as tamper-proof coding information, for the unique identification of the card. The magnetic strip is made up of two stacked layers, one of which is a magnetic layer, and the other layer is a particulate coding layer comprising low coercivity magnetic particles dispersed in a UV-curable resin. Tamper-proof coding information is recorded into the particulate coding layer at the time of manufacture. The particulate coding layer is exposed to a magnetic field pattern when the UV-curable resin is still wet and the low coercivity magnetic

particles are still mobile within the UV-curable resin. The magnetic field pattern causes the low coercivity magnetic particles to agglomerate at regions of strong magnetic force. After UV curing, the agglomerated magnetic particles become fixated within the cured resin, forming permanent physical protrusions which extend into an adhesive layer that is used to tack the magnetic strip to the card. The protrusions can be magnetically read as barcode signals providing the identification information for the card. In this manner, regular magnetic information can be recorded and erased from the conventional magnetic layer, without affecting the barcode signal provided by the magnetic coding layer beneath.

The subject matter of the present amended claims is novel over Suzuki because Suzuki does not disclose a tag having pores. The UV-curable resin in which low coercivity magnetic particles are contained serves as a host material for the magnetic particles. However, UV-curable resins in general are not known to have pores. Even if they do develop pores under certain circumstances, Suzuki does not disclose or suggest the use of a UV-curable resin that has pores.

In paragraph 4.1 of the office action, the Examiner refers to Fig. 17A of Suzuki as disclosing a pore that contains magnetic material. It is noted that Suzuki Fig. 17A discloses a substrate 81 having a groove 83 in which a magnetic strip comprising a stacked magnetic layer and particulate coding layer as described above is arranged. Therefore, the only way for this to be equivalent to the present claims is for the groove 83 to be a pore as defined in pending claim 1. However groove 83 does not fall within the conventional meaning of the term "pore," as it is a macroscopic recess running along the length of a conventional card. According to the Merriam-Webster online dictionary (See <a href="www.m-w.com">www.m-w.com</a>), a "pore" is defined as "a minute opening; small interstice....admitting absorption or passage of water" (See enclosed Annex 1). The groove 83 is neither a minute opening nor a small interstice, as it does not fit within the range of sizes typically associated with "pores" and as defined, for example, in [0033]-[0034] of the present application. Therefore, Suzuki does not disclose a host material having pores even if such an interpretation is applied.

The Examiner also considers the depressions, formed in the adhesive layer due to the presence of protrusions from the particulate coding layer, to be "pores" falling within the definition of the term as specified in claim 1. The examiner is incorrect because the depressions in the adhesive layer do not constitute "pores" for the reasons presented above with regard to the typical size of a pore.

Even if the depressions in the adhesive layer are considered as pores, they are not preformed in the host material, and then subsequently filled with magnetic material as required in amended claim 1. Referring to the Free Dictionary by Farlex (See <a href="www.thefreedictionary.com">www.thefreedictionary.com</a>), "pore" is defined as "any tiny hole admitting passage of a liquid (fluid or gas)" and the "hole" mentioned therein is defined as "an unoccupied space" (See enclosed Annex 2). The method as defined in claim 1 is different from what is described in Suzuki, as it requires the use of a host material having pre-formed pores that have been filled with a magnetic material. In other words, in order to be defined as a pore, the pore must have been a tiny unoccupied space at some stage of its existence, which is subsequently filled with magnetic material. In Suzuki, depressions in the adhesive layer are formed incidentally when the protrusions are pushed into or coated with an adhesive due to the agglomeration of the magnetic particles, but not pre-formed as specified in amended claim 1. Therefore, at no point do the depressions in the adhesive layer provide an unoccupied space. In the absence of pre-formed pores, there is no way to carry out the filling of the pores with a magnetic material as specified in amended claim 1.

Further, it is noted that the magnetic field pattern (coding information) that is read from the protrusions formed by the agglomerated magnetic particles in the resin layer of Suzuki is an ordered, barcode-type signal corresponding to a pre-chosen barcode pattern (see *Suzuki* Col. 8, lines 19-25). In the method as defined in currently pending claim 1, the magnetic field pattern that is read from the tag is characterized by disorder attributable to the randomly arranged magnetic elements in the pores of the non-magnetic host material (see paragraph [0067] and claim 17). Suzuki neither discloses nor suggests the use of inherent disorder in the tag to provide coding information.

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The arguments discussed above with respect to claim 1 apply equally to independent claims 23, 25, 29 and 31 as well as to dependent claims 2-14, 16-18 and 26, and show that these claims are not anticipated by Suzuki. Therefore, applicants request that this rejection be withdrawn.

# Rejection of Claim 15 Under 35 USC § 103(a)

The examiner states that claim 15 is obvious over Suzuki because present claim 1 is directed to the method of Suzuki, except that Suzuki does not specifically determine the diameter of the pores. However, the examiner believes it would be obvious to use pores of the size claimed in present claim 15, and that the "perturbations" of Suzuki must be much smaller than 1,000 nm to fit in the coding layer. Applicant respectfully disagrees. As discussed above, Suzuki does not teach pre-formed pores as required by the pending claims. Therefore, Suzuki cannot teach pores of a particular size (10nm to 500nm, as required by present claim 15).

#### CONCLUSION

For the reasons described above, applicants believe claims 1-18, 23, 25, 26, 29 and 31 are in proper form and request issuance of a Notice of Allowance. If the examiner believes that a telephone conference would expedite the resolution of the existing or new issues, he is requested to contact the undersigned and the number listed below.

Respectfully submitted,

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